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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER HOSSEL, KRISTIN TIEFENSEE, AXEL SANNER,
REINHOLD DIEING, MICHAEL GOTSCHKE and
KATRIN ZEITZ

Appeal 2008-1807
Application 09/604,001
Technology Center 3700

Decided: April 10, 2008

Before DEMETRA J. MILLS, ERIC GRIMES, and RICHARD M.
LEBOVITZ, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-13
and 15. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

STATEMENT OF THE CASE

The claims are directed to a skin cosmetic or dermatological preparation comprising a copolymer having two to five components, (a) through (e), in specifically recited proportions. According to the Specification, the copolymer can “contribute to the moisturizing and conditioning of the skin and to improving the feel of the skin” (Spec. 13: 11-13).

Claims 1-15 are pending. Claim 14 is objected to as being dependent on a rejected base claim (Ans. 9). Claims 1-13 and 15 stand finally rejected as follows:

1) Claims 1-13 and 15 as obvious under 35 U.S.C. § 103(a) over Uhl (U.S. Pat. 5,219,969, Jun. 15, 1993) (Ans. 3);

2) Claims 1-13 and 15 as obvious under 35 U.S.C. § 103(a) over Tropsch (U.S. Pat. No. 5,869,032, Feb. 9, 1999) (Ans. 5); and

3) Claim 1-13 and 15 under the judicially-created doctrine of obviousness-type double-patenting over claims 1-13 of Tropsch (Ans. 6).

Claim 1, which is representative of the claimed subject matter, reads as follows:

1. In a skin cosmetic or dermatological preparation selected from cosmetic compositions for cleansing the skin, cosmetic compositions for the care and protection of the skin, nail care compositions, and preparations for decorative cosmetics, the improvement wherein the composition consists essentially of customary additives and at least one copolymer obtained by
 - (i) free-radically initiated copolymerization of a monomer mixture comprising

- (a) 1 to 99.99% by weight of at least one monomer selected from the group consisting of N-vinylimidazoles and diallylamines, optionally in partially or completely quaternized form;
- (b) 0 to 98.99% by weight of at least one neutral or basic water-soluble monomer which is different from (a);
- (c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride,
- (d) 0 to 50% by weight of at least one free-radically copolymerizable monomer which is different from the monomers (a); from the monomers (b) and from the monomers (c); and
- (e) 0.01 to 10% by weight of at least one monomer which acts as crosslinker and has at least two ethylenically unsaturated, nonconjugated double bonds; and
- (ii) subsequent partial or complete quaternization and protonation of the polymer in the case where the monomer (a) is unquaternized or only partially quaternized.

OBVIOUSNESS - UHL

Claims 1-13 and 15 stand rejected as obvious under 35 U.S.C.

§ 103(a) over Uhl.

Issue on Appeal

The Examiner contends that the range of “(c) 0 to 40% by weight of at least one unsaturated acids or unsaturated anhydride” as recited in claim 1 would have been obvious to persons of ordinary skill in the art in view of Uhl’s disclosure of a polymer comprising “50 to 99 parts by weight of acrylic and/or methacrylic acid”,¹ which are unsaturated acids. Appellants contend that Uhl’s disclosure does not suggest the claimed range. Thus, the

¹ The Examiner treats “% by weight” as the same as “parts by weight” (Ans. 3). As Appellants do not challenge this interpretation, we adopt it in this Decision.

issue in this rejection is whether the Examiner erred in finding that Uhl's description of a polymer comprising "50 to 99 parts by weight of acrylic and/or methacrylic acid" (Uhl, at col. 2, ll. 26-27) would have led persons of ordinary skill in the art to the claimed lower range of 0 to 40% by weight.

Findings of Fact ("FF")

1. Uhl describes a textile print paste (Uhl, Abstract) containing a copolymer as a thickener for a textile print paste which comprises components (a), (b), (d), and (e) of claim 1 (Ans. 3-4).
2. The copolymer comprises "from 50 to 99 parts by weight of acrylic acid and/or methacrylic acid" (Uhl, at col. 2, ll. 26-27).
3. Acrylic and methacrylic acid are unsaturated acids.
4. Thus, Uhl's copolymer contains from 50 to 99% by weight² of an unsaturated acid.
5. The copolymer of claim 1 comprises "(c) 0 to 40% by weight of at least one unsaturated acid or unsaturated anhydride."
6. Thus, the difference between Uhl's copolymer and the claimed copolymer is that Uhl's comprises from 50 to 99% by weight of the unsaturated acid, while Appellants' has 0 to 40% by weight (Ans.³ 4).

² See fn. 2 *supra*.

³ "Ans." refers to the Examiner's Answer mailed Jun. 25, 2007.

Analysis

“[T]he Examiner bears the initial burden, on review of the prior art . . . , of presenting a prima facie case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). In making an obviousness determination, the Examiner must first identify the scope and contents of the prior art and then ascertain the differences between the prior art and the claimed invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Once the differences between the prior art and the claimed invention have been ascertained, the next step is to identify a reason why persons of ordinary skill in the art would have been prompted to modify the prior art to have made the claimed invention. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007).

In this case, the Examiner clearly articulated the difference between the prior art and the claimed invention: Appellants claim a range of 0 to 40% by weight of an unsaturated acid in a copolymer, while Uhl describes the unsaturated acid in an amount from 50 to 99% by weight in the same copolymer (FF 1-6; Ans. 4). The Examiner contends that the claimed range would have been obvious because “differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating the concentration is critical” (Ans. 4).

The Examiner also states that

the person of ordinary skill in the art has the technical know how to optimize the emulsion composition by adjusting the amount of the unsaturated acid to obtain emulsion that would produce sharp and brilliant colors in prints. The amount of the unsaturated acid can be adjusted upwards or downwards

depending on the emulsion desired to produce sharp and brilliant color of fabric.

(Ans. 8.)

The Examiner has not established prima facie obviousness of the claimed subject matter. The Examiner mischaracterizes the subject matter of claim 1 as “encompassed by the prior art” (Ans. 4). This is clearly an error since 0 to 40 as in claim 1 is neither encompassed by nor overlapping with the prior art range of 50 to 99. There is a presumption of obviousness when there is a range disclosed in the prior art and the claimed invention falls within or overlaps with that range. *See Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1322 (Fed. Cir. 2004); *In re Geisler*, 116 F.3d 1465, 1469 (Fed. Cir. 1997). However, these facts do not exist here.

Obviousness has also been found when the differences in proportion between the prior art and the claimed invention are “so close that prima facie one skilled in the art would have expected them to have the same properties.” *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985). We do not find this to be the case here. We agree with Appellants that the Examiner has not identified any disclosure in Uhl which would have led a person of ordinary skill in the art to expect a useful polymer for textile print pastes when the amount of unsaturated polymer is decreased from at least 50 parts by weight to at most 40% by weight as required by claim 1 (App. Br. ⁴ 5). To the contrary, Uhl prefers higher amounts of the unsaturated acid, “from 50 to 99, preferably from 70 to 95,

⁴ “App. Br.” refers to the Appeal Brief date stamped Mar. 23, 2006.

parts by weight” (Uhl, at col. 3, ll. 3-5), leading persons of skill in the art to have expected that higher amounts of the acid would be necessary for the copolymer to serve as thickener in a textile print paste.

The Examiner also argues that the ordinary skilled artisan would had reason to optimize the ranges of the unsaturated acid to obtain an emulsion that would produce sharp and brilliant colors (Ans. 8). The Examiner does not identify, nor do we find, any disclosure in Uhl which teaches that the amounts of unsaturated acid would affect the color characteristics of the textile print paste. Thus, we conclude that the Examiner has not provided adequate reason which would have led persons of ordinary skill in the art to have reduced the amount of unsaturated acid in Uhl’s polymer to the amount recited in claim 1.

For the foregoing reasons, we reverse the rejection of claims 1-13 and 15 as obvious over Uhl.

OBVIOUSNESS - TROPSCH

Claims 1-13 and 15 stand rejected under 35 U.S.C. § 103(a) as obvious over Tropsch.

Issue on Appeal

The Examiner contends that “0.01 to 10% by weight” of a monomer having “at least two ethylenically unsaturated, nonconjugated bonds” as recited in claim 1 would have been obvious to persons of ordinary skill in the art in view of Tropsch’s disclosure of the same monomer in a range which encompasses the claimed range. Appellants contend that Tropsch

does not describe a monomer that has “at least two ethylenically unsaturated, nonconjugated bonds” as required by component (e) of claim 1. Thus, the issue in this rejection is whether the Examiner erred in finding that Tropsch describes a monomer which meets the structural requirements recited for the component (e) monomer of claim 1.

Findings of Fact

7. Tropsch describes a copolymer comprising N-vinylimidazole (Tropsch, at col. 1, ll. 56-60; at col. 2, ll. 5-15).

8. N-vinylimidazole has three double bonds (*see* Tropsch, at col. 2, ll. 5-15; *see* formula (I)).

9. Two of the bonds, C=C and C=N, are conjugated and part of the imidazole ring (Reply Br.⁵ 2-3).

10. The third double bond is a vinyl group which is an unsaturated ethylene (C=C).

Analysis

“[T]he Examiner bears the initial burden, on review of the prior art . . . , of presenting a prima facie case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). In this case, the Examiner finds

Column 4, line 45 [of Tropsch] discloses the presence of polyvinyl amine, and divinyl amine or trivinyl amine are vinyl amines. The polyvinyl amine/trivinyl amine and vinylimidazoles meet the limitation of non-conjugated ethylenically unsaturated double bond containing moiety. The

⁵ There were three reply briefs filed in this appeal. “Reply Br.” refers to the Reply Brief filed April 9, 2007.

vinylimidazole is present in amounts of 5-50% (column 1, lines 59-61) and the range falls within the recited range and touches a point in the range of 0.01-10% recited in 1 (e) and thus meets the limitations of 1 (e) in the broadest sense.

(Ans. 5-6). In sum, the Examiner finds that each of 1) polyvinyl amine, 2) trivinyl amine, and 3) vinylimidazole meet the limitations of the monomer component of (e) of claim 1.

Appellants argue: 1) polyvinyl amines are not monomers which are incorporated into Tropsch's copolymer, but are described as additives to hair cosmetics; 2) Tropsch does not disclose trivinyl amine monomers; and 3) vinylimidazole contains two conjugated bonds in the aromatic imidazole ring and therefore does not contain two double bonds that are "nonconjugated" and "ethylenic" as required by claim 1 (Reply Br. 2-3).

We are persuaded by Appellants that the Examiner erred. As Appellants argue, the "polyvinylamines" disclosed in Tropsch are described as suitable polymers to add to a hair cosmetic, but are not disclosed as a chemical component of Tropsch's copolymer (Tropsch, at col. 4, ll. 40-45). Thus, this disclosure is not pertinent to the copolymer of claim 1 which requires (e) as a chemical component of the claimed copolymer.

Like Appellants, we can find no disclosure of a "trivinyl amine" in Tropsch. The Examiner states that this compound is named at column 4, line 45 of Tropsch (Ans. 5), but only "polyvinylamines" are mentioned on this line.

Finally, we agree with Appellants that N-vinylimidazole does not have "at least two ethylenically unsaturated, nonconjugated bonds" as

required by component (e) of claim 1. Of the three double-bonds in N-vinylimidazole, two of these are conjugated and part of the imidazole ring (FF 8-9). The third double bond is a vinyl group which is an unsaturated ethylene (C=C) (FF 10). Thus, N-vinylimidazole does not have the two “unsaturated, nonconjugated bonds” necessary to meet the limitations of claim 1.

For the foregoing reasons, we reverse the rejection of claims 1-13 and 15 as obvious over Tropsch.

DOUBLE-PATENTING

Claims 1-13 and 15 stand rejected under the judicially-created doctrine of double-patenting as unpatentable over claims 1-13 of Tropsch.

The Examiner contends that “the conflicting claims are not identical” to those of Tropsch, but “are not patentably distinct from each other because differences in concentration will not support the patentability of subject matter encompassed by the prior art” (Ans. 6).

We will not sustain this rejection. The Examiner has not met the burden of providing evidence that the application claims are obvious over the patent claims. *See In re Berg*, 140 F.3d 1428 (Fed. Cir. 1998).

Independent claims 1 and 13 of Tropsch are directed to a copolymer obtained from polymerization of four components (a)-(d). Independent claim 1 of the instant application is directed to a polymer having at least two components (a) and (e). The Examiner has not shown or provided evidence that Tropsch’s claimed compositions comprise “at least one monomer which

. . . has at least two ethylenically unsaturated, nonconjugated double bonds” as required by component (e) instant claim 1. As discussed above, N-vinylimidazole – component (a) of Tropsch’s composition of claim 1 and 13 – does not have the two “unsaturated, nonconjugated bonds” necessary to meet the limitations of component (e) of claim 1. Thus, the Examiner has not met the burden of establishing that the instant claims are prima facie obvious over claims 1-13 of Tropsch. Accordingly, we reverse the rejection of claims 1-13 and 15 under the judicially-created doctrine of double-patenting.

In reversing the rejection, we note that we do not agree with Appellants’ statement that an obvious-type double-patenting rejection is not appropriate because Tropsch is prior art under 35 U.S.C. §§ 102(a) and (b) (App. Br. 8). “Obviousness-type double-patenting is a judge-made doctrine that prevents an extension of the patent right beyond the statutory time limit. It requires rejection of an application claim when the claimed subject matter is not patentably distinct from the subject matter claimed in *a commonly owned patent*.” *Berg*, 140 F.3d at 1431. (Emphasis added.) Since Appellants have not challenged the Examiner’s finding that the instant application and Tropsch are commonly owned, an obviousness-type double-patenting rejection would be appropriate, regardless of whether the entire disclosure of the patent is prior art to the instant application.

CONCLUSION

All rejections are

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REVERSED.

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